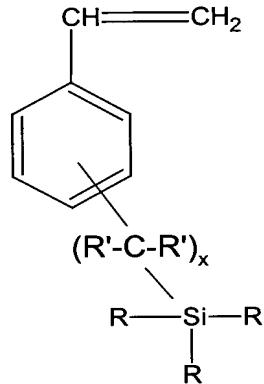


WHAT IS CLAIMED IS:

1. A process for synthesizing a rubbery polymer that
5 comprises copolymerizing at least one conjugated diolefin
monomer and at least one functionalized monomer in an
organic solvent at a temperature which is within the range
of 20°C to about 100°C, wherein the polymerization is
initiated with an anionic initiator, wherein the
10 polymerization is conducted in the absence of conventional
polar modifiers, and wherein the functionalized monomer is
of the structural formula:

15

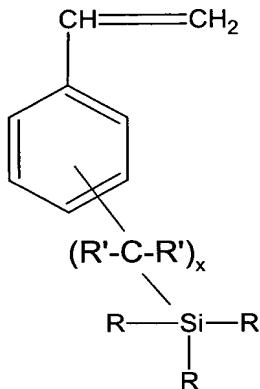


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wherein the R' groups in repeat units and in different
repeat units can be the same or different and represent
hydrogen atoms or alkyl groups containing from 1 to about 4
25 carbon atoms, wherein x represents an integer from 1 to
about 10, and wherein the R groups in repeat units and in
different repeat units can be the same or different and
represent alkyl groups containing from 1 to about 10 carbon
atoms or alkoxy groups containing from 1 to about 10 carbon
30 atoms.

2. A monomer of the structural formula:

5



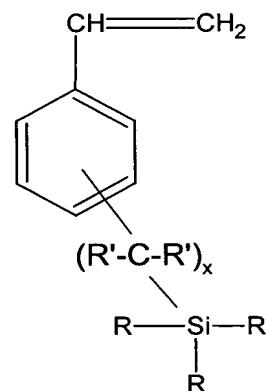
10 wherein the R' groups in repeat units and in different repeat units can be the same or different and represent hydrogen atoms or alkyl groups containing from 1 to about 4 carbon atoms, wherein x represents an integer from 1 to about 10, and wherein the R groups in repeat units and in

15 different repeat units can be the same or different and represent alkyl groups containing from 1 to about 10 carbon atoms or alkoxy groups containing from 1 to about 10 carbon atoms.

20 3. A rubbery polymer which is comprised of repeat units that are derived from (1) at least one conjugated diolefin monomer, and (2) at least one functionalized monomer of the structural formula:

25

30

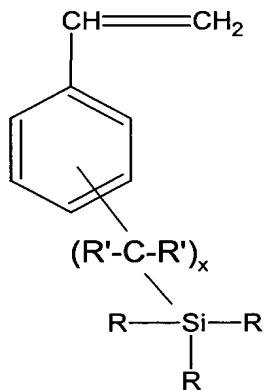


wherein the R' groups in repeat units and in different

repeat units can be the same or different and represent hydrogen atoms or alkyl groups containing from 1 to about 4 carbon atoms, wherein x represents an integer from 1 to about 10, and wherein the R groups in repeat units and in different repeat units can be the same or different and represent alkyl groups containing from 1 to about 10 carbon atoms or alkoxy groups containing from 1 to about 10 carbon atoms.

4. A tire which is comprised of a generally toroidal-shaped carcass with an outer circumferential tread, two spaced beads, at least one ply extending from bead to bead and sidewalls extending radially from and connecting said tread to said beads, wherein said tread is adapted to be ground-contacting, and wherein said tread is comprised of (I) a filler, and (II) rubbery polymer which is comprised of repeat units that are derived from (1) at least one conjugated diolefin monomer, and (2) at least one monomer of the structural formula:

20



wherein the R' groups in repeat units and in different repeat units can be the same or different and represent hydrogen atoms or alkyl groups containing from 1 to about 4 carbon atoms, wherein x represents an integer from 1 to about 10, and wherein the R groups in repeat units and in

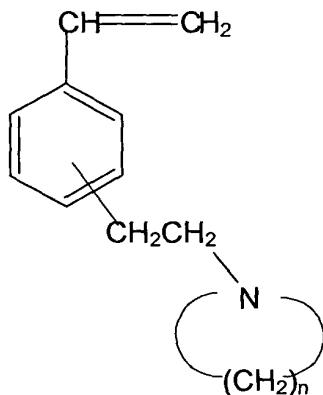
different repeat units can be the same or different and represent alkyl groups containing from 1 to about 10 carbon atoms or alkoxy groups containing from 1 to about 10 carbon atoms.

5

5. A process for synthesizing a rubbery polymer that comprises copolymerizing at least one conjugated diolefin monomer and at least one functionalized monomer by emulsion polymerization in an aqueous medium, wherein the 10 polymerization is initiated with a free radical generator, and wherein the functionalized monomer has a structural formula selected from the group consisting of:

15

(a)

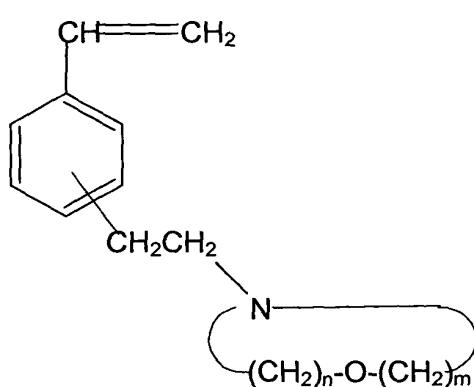


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wherein n represents an integer from 4 to about 10,

25

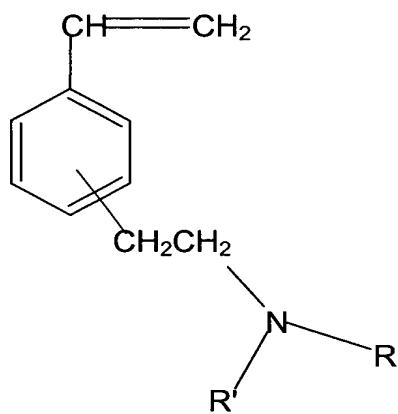
(b)



wherein n represents an integer from 0 to about 10 and wherein m represents an integer from 0 to about 10, with the proviso that the sum of n and m is at least 4;

5 (c)

10

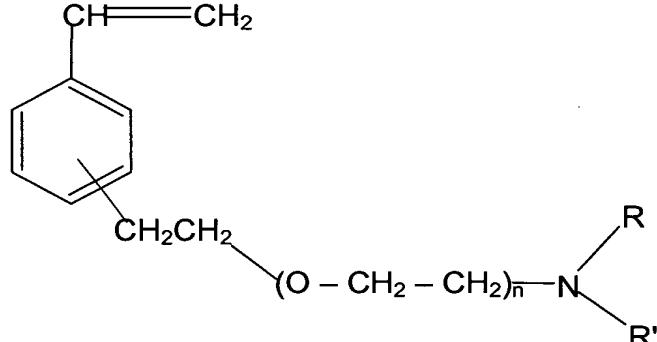


wherein R and R' can be the same or different and represent alkyl, allyl groups or alkoxy groups containing from 1 to about 10 carbon atoms; (d)

15 (d)

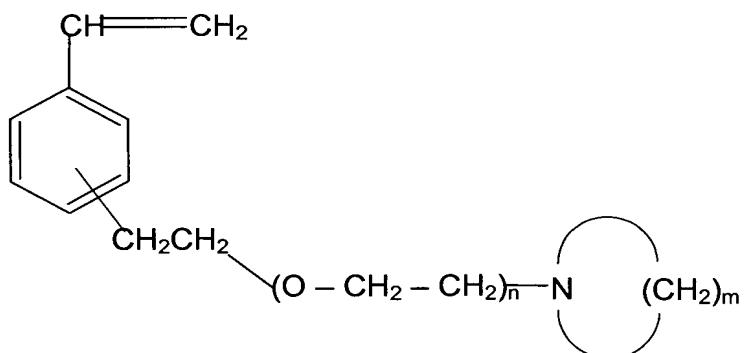
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25



wherein n represents an integer from 1 to about 10, and wherein R and R' can be the same or different and represent alkyl groups containing from 1 to about 10 carbon atoms;

(e)

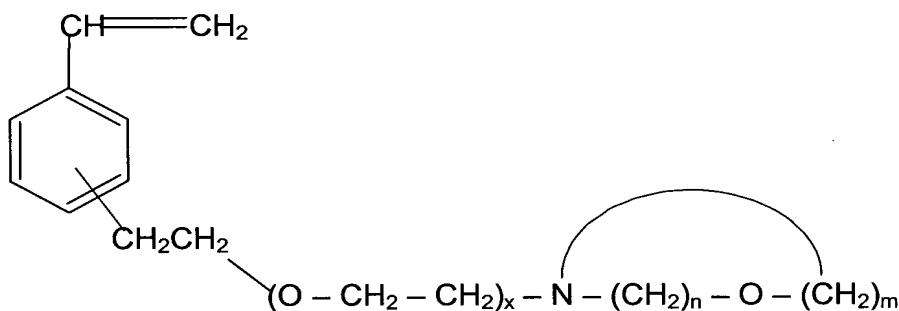


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wherein n represents an integer from 1 to about 10 and wherein m represents an integer from 4 to about 10;

10

(f)

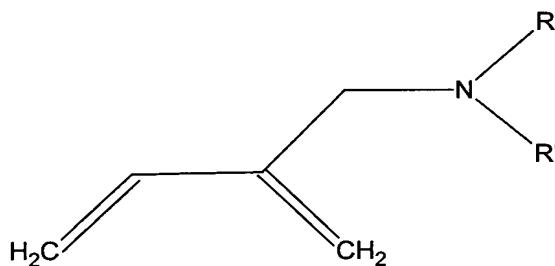


15

wherein x represents an integer from 1 to about 10, wherein n represents an integer from 0 to about 10 and wherein m represents an integer from 0 to about 10, with the proviso that the sum of n and m is at least 4;

(g)

25

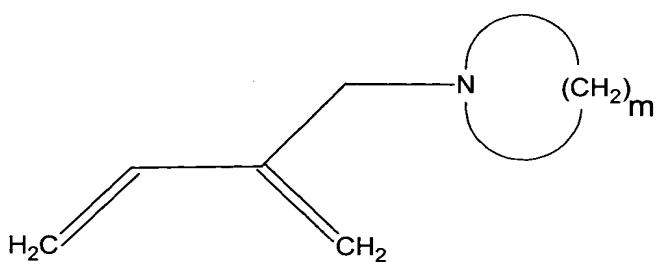


30

wherein R and R' can be the same or different and represent allyl, alkoxy or alkyl groups containing from 1 to about 10 carbon atoms,

(h)

5

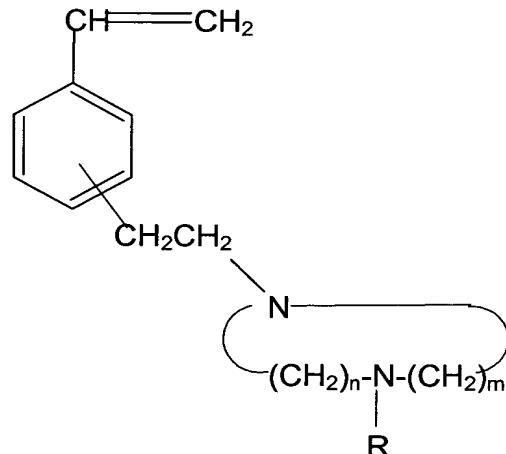


wherein m represents an integer from about 4 to about 10;

(i)

10

15

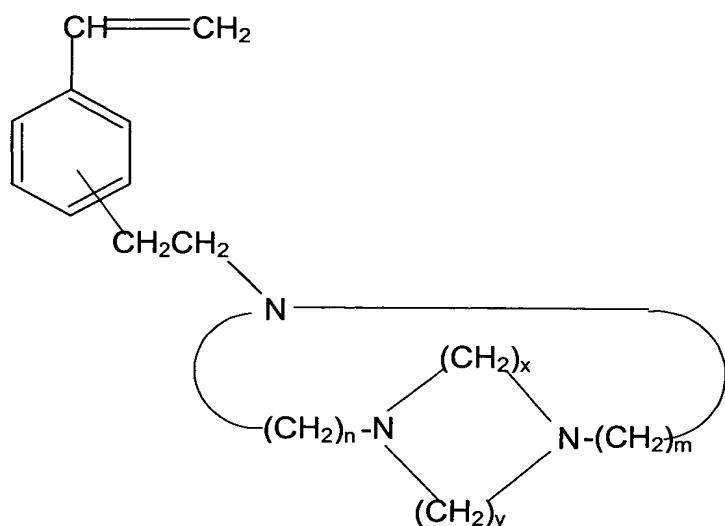


wherein R represents a hydrogen atom or an alkyl group containing from 1 to about 10 carbon atoms, wherein n represents an integer from 0 to about 10, and wherein m represents an integer from 0 to about 10, with the proviso that the sum of n and m is at least 4;

(j)

25

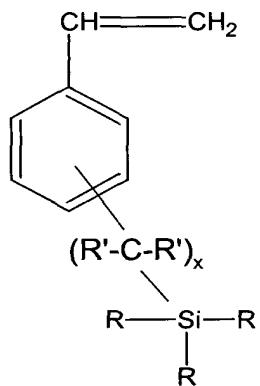
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wherein n represents an integer from 0 to about 10, wherein m represents an integer from 0 to about 10, wherein x represents an integer from 1 to about 10, and wherein y represents an integer from 1 to about 10; and

5

10 (k)



15 wherein the R' groups in repeat units and in different repeat units can be the same or different and represent hydrogen atoms or alkyl groups containing from 1 to about 4 carbon atoms, wherein x represents an integer from 1 to about 10, and wherein the R groups in repeat units and in
20 different repeat units can be the same or different and represent alkyl groups containing from 1 to about 10 carbon atoms or alkoxy groups containing from 1 to about 10 carbon atoms.

25 6. A rubbery polymer as specified in claim 3 wherein x represents an integer from 1 to 4.

7. A rubbery polymer as specified in claim 6 wherein R' represents hydrogen atoms and/or methyl groups.

30

8. A rubbery polymer as specified in claim 6 wherein R' represents hydrogen atoms.

9. A rubbery polymer as specified in claim 7 wherein R represents alkoxy groups.

10. A rubbery polymer as specified in claim 8 wherein 5 R represents alkoxy groups containing from 1 to 4 carbon atoms.

11. A monomer as specified in claim 2 wherein x represents an integer from 1 to 4.

10 12. A monomer as specified in claim 2 wherein R' represents hydrogen atoms and/or methyl groups.

13. A monomer as specified in claim 12 wherein R' 15 represents hydrogen atoms.

14. A monomer as specified in claim 12 wherein R represents alkoxy groups.

20 15. A monomer as specified in claim 14 wherein R represents alkoxy groups containing from 1 to 4 carbon atoms.

25 16. A rubbery polymer as specified in claim 3 which is further comprised of repeat units that are derived from styrene.

17. A rubbery polymer as specified in claim 3 wherein the conjugated diolefin monomer is 1,3-butadiene.

30 18. A rubbery polymer as specified in claim 3 wherein the conjugated diolefin monomer is isoprene.

19. A rubbery polymer as specified in claim 3 wherein the repeat units are derived from 0.1 phm to about 1 phm of the functionalized monomer.

5 20. A rubbery polymer as specified in claim 3 wherein the repeat units are derived from 0.3 phm to about 0.7 phm of the functionalized monomer.